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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/091,584

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Rudolf Caspari

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EXAMINER

PIERRE, MYRIAM

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/091,584

**Applicant(s)**

CASPARI, RUDOLF

**Examiner**

Myriam Pierre

**Art Unit**

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 7/18/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10110977.6.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papineni et al (6,246,981) in view of Norton et al. (6,510,411).

As to claims 1 and 13, Papineni et al. teach the background application (backend (application-specific software), col. 7 lines 4-5) being modeled on principles P1 through P3:

P1) the background application (backend) can be interpreted as a finite set of transactions (tasks) T1, T2..,Tn (col. 9, line 60-61. Backend performs the tasks.);

P2) each transaction (task) has a finite set of parameters (slot or form level) required to execute the transaction (task) (col. 9, lines 58-61. Backend performs the tasks described in the message, slot-level messages);

P3) each parameter (slot or form level) has an grammar (attribute, col. 8 lines 46) that serves to acquire a value (col. 8 line 47) for the parameter (slot) in a speech dialog (Dialog

manager, DM) (col. 9 lines 54-56, col. 12 lines 12-13, the DM uses a slot-level message, slots are filled directly from the input (attribute, value) pairs, thus necessarily acquiring a value that corresponds to the attribute.);

the speech dialog system (DM) can assume at least the following states (return codes);

state a) no transaction has yet been selected, and the transactions  $T_1, T_2, \dots, T_i$  (tasks) are still possible (return codes include an optional list of forms to be disabled and optional list of forms to be enabled, col. 9 lines 64-65, col. 13 lines 47-53, the disabled forms are necessarily unselected tasks, yet an optional list of forms are can be enabled, thus tasks are still possible); and

state b) a transaction (task) has been selected, but not all values relating to this transaction (task) have yet been input (optional list of forms to be enabled, user can not switch tasks until the current task is completed or until explicitly canceling out of it, col. 9 lines 64-65, col. 10 lines 41-42);

a memory (col. 7 line 46) that necessarily stores a transaction prompt (message) for each transaction (task) (DM stores messages, col. 10 line 43);

a memory (col. 7 line 46) that necessarily stores a help prompt ("Helpmsg") for each parameter (slot or form) (col. 13 lines 36-41, and col. 14 lines 29-35, form-level messages includes "helpMsg:", thus the help prompt is necessarily stored for each form).

an detection unit to detect a global (form-level) help command (Helpmsg) to request help (col. 13, lines 38-42; col. 14 lines 33-34; and col. 9 lines 48-52, form-level help commands allow for a "Helpmsg" command, thus implying that once the user requests help, the "Helpmsg" prompt is detected, "Helpmsg" is selected by DM when user requests help on a form.);

an output unit (output interface, col. 7, line 46) outputting a prompt corresponding to the state (return code) and context (account number) after detection of the global help command (col. 13 lines 35-41, the Helpmsg is prompted after the user has not entered the account number, state a, and has to either enter the account number or under the command “StuckRecord”, the user will be transferred to an operator);

such that at least one transaction prompt is output in the state a). (no transactions have been entered, such as name of fund, col. 14 lines 34-36) and at least one help prompt is output in the state b) (possible transactions are still available, such as buy and amount, col. 14 lines 34-36).

defining sub-states (“begin”, col. 13 line 36-37) for hierarchical structuring of a help function associated with the help prompt (hierarchical structure would be the \msg HelpMsg\ script before the sub-state “begin”, col. 13 lines 35-39), the sub-states being assigned to transactions (enter account number, col. 13 lines 35-39) and sub-states (\msg HelpMsg\, col. 13 lines 35-39)

outputting (the output unit), using the speech dialog systems (Fig. 1, speech output, dialog manager, element 40), the sub-sbstates and transactions available in the respective sub-substate in the even of detection of the global help command (\msg HelpMsg\, col. 13 lines 35-39; col. 13 lines 31-39 and col. 14 lines 29-39; the first sub-state is the help message in entering the account number, the sub-substate would be after the person is in the account, in the beginning transaction of purchasing a fund, the help message sub-substate is “name of fund you want to buy” and the other one is “switch & size” or “specify amount”, all of which are hierarchical in nature because the help transaction depends on the previous transaction, such as the first sub-

Art Unit: 2626

state would not be required after the sub-substate help prompt is activated, the help dialog would not need to ask for the account number when the user needs help in dictating which fund they want to purchase or the name of the fund they want to buy).

Papineni et al do not teach the sub-substates and transactions available being output by a help prompt followed by an enumeration of transaction prompt.

However, Norton et al. do teach the sub-substates and transactions available being output by a help prompt followed by an enumeration of transaction prompt (col. 6 line 49-col. 7 line 5; col. 5 lines 51-59; and col. 8 lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the task oriented dialogue manager of Papineni et al. into the dialogue manager with transaction prompts of Norton et al. because Norton et al. teach that this would develop a task oriented dialog model whereby a top-level task can be structured according to tasks and subtasks, each having properties relating to the structure, Abstract.

As to claim 2, which depends on claim 1, Papineni et al. teach wherein the help prompt stored for each parameter specifies the form in which a value for the parameter is to be input (col. 14 lines 33-35, col. 9 lines 2-9, "Helpmsg" is necessarily stored for the form-level tasks in which a value, such as "buy" or "specify an amount", for the slot is to be inputted).

As to claims 3 and 8, which depends on claims 1 and 2, Papineni et al. teach wherein after detection of the global help command in state a) (col. 14 lines 35-40) and all possible transactions, transactions are output to with a global help prompt (col. 14 lines 33-35, also has all

Art Unit: 2626

the options listed for that task, under the “helpmsg” prompt, thus the “helpmsg” is a global help message because the user can access the “helpmsg” prompt from either form-level or slot-level interactions).

As to claims 4 and 9, which depends on claims 1 and 8, Papineni et al. teach wherein a global help prompt is stored (col. 14 lines 35-40, “Helpmsg” is necessarily stored because the backend retrieves it); and

after uttering the global help command (user request help on a task, col. 9 lines 49-52), a user is provided with possible options for state a) by a combination of the global help prompt (“Helpmsg”) and the transaction prompt (options for purchase, buy, and amount) (col. 14 lines 33-36).

As to claims 5 and 10, which depends on claims 1 and 9, Papineni et al. teach wherein an option prompt is stored and output with all values that are possible for a respective parameter (col. 14 lines 34-36, output value options are listed, thus options were necessarily stored in order for user to receive the options).

As to claims 6 and 11, which depends on claims 1 and 10, Papineni et al. teach wherein a grammar is stored for each possible user input (col. 8 lines 29-31, 57-60 and col. 10 lines 65-66, semantic representation necessarily implies grammar, the attribute part of the pair, is necessarily stored in order for the system to match or identify key words, the attribute and value is stored in

Art Unit: 2626

a DM's memory).

As to claims 7 and 12, which depends on claims 1 and 11, Papineni et al. teach wherein after detecting of the global help command in state a). the available transactions are hierarchically ordered (parse tree) (a list of (attribute, value) pairs are assembled and some of the attributes, such as labels, are from a parse tree, col. 8 lines 46-49, the attributes, such as the labels are from a parse tree which is necessarily hierarchical in order).

As to claim 14, Papineni et al. teach a method for providing help information to a user of a voice operated system that executes one of a plurality of transactions after the transaction has been identified and a value for each parameter associated with the transaction has been entered comprising:

hierarchically structured transactions using sub-state such that sub-substates are defined within sub-state and transactions are defined within a sub-state (col. 14 lines 29-39; sub-substates are the \msg CancelMsg\ or \msg Help Msg\ for purchasing transaction(s));

receiving an oral command requesting help (user request help, col. 9 line 50, speech dialog system necessarily implies oral communication) matching the oral command with a stored global help command (col. 13 line 36-37, and col. 14 lines 35-37, the system would necessarily respond by matching the oral command (purchase) with the stored "Helpmsg" command (purchase requires the name of the fund you want to buy));

outputting at least one transaction prompt if the user has not identified the transaction (prompt for missing information, col. 13, lines 29-32 );



outputting at least one parameter help prompt (form level “helpmsg” prompt) if the user has identified the transaction, but has not entered a value for each parameter associated with the transaction (col. 14, lines 26-28 & 34-37, the DM requests user to enter name of fund which implies that the user has not entered a value for each parameter associated with the transaction).

determining a hierarchical location of a user within a sub-state when the oral command is matched with the stored global help command (col. 14 lines 37-40);

outputting, using the speech dialog systems (Fig. 1, speech output, dialog manager, element 40), the sub-sbstates and transactions available in the respective sub-substate in the even of detection of the global help command (\msg HelpMsg\, col. 13 lines 35-39 and col. 13 lines 31-39).

Papineni et al do not teach the sub-substates and transactions available being output by a help prompt followed by an enumeration of transation prompt.

However, Norton et al. do teach the sub-substates and transactions available being output by a help prompt followed by an enumeration of transation prompt (col. 6 line 49-col. 7 line 5; col. 5 lines 51-59; and col. 8 lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the task oriented dialogue manager of Papineni et al. into the dialogue manager with transaction prompts of Norton et al. because Norton et al. teach that this would develop a task oriented dialog model whereby a top-level task can be structured according to tasks and subtasks, each having properties relating to the structure, Abstract.

*Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. see PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myriam Pierre whose telephone number is 571-272-7611. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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9/19/06

  
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